

MISO-PJM Joint and Common Market Drill Down Report

August 22, 2017

The purpose of this document is to provide a brief description of each component listed on the Joint and Common Market (JCM) Work Plan Timeline compiled by PJM and MISO. This Drill Down Report has been created in order to track the progress of the JCM stakeholder process as well as keep interested stakeholders informed regarding the progress of the stakeholder discussions. The Drill Down Report will be updated as necessary to reflect the status of this effort on an ongoing basis.

CATEGORY I: MARKET OPERATIONS

RTO-to-RTO Data Exchange and Transparency

Description: PJM and MISO have implemented regular posting of the information requested by the stakeholders through the JCM process. Therefore, this item is considered to be completed. However, the RTOs recognize that additional transparency initiatives may arise as the JCM process proceeds, and they will be addressed as needed.

Deliverable(s): Public posting of data, process documentation, etc. that provides market participants with information and insight into the operation of the market-to-market coordination process.

Timeline: Ongoing

Status: Complete. MISO and PJM Market-to-Market Hourly Settlement Data, Active Flowgates, and Firm Flow Entitlements is available at the MISO and PJM Joint and Common Market Website at: <http://www.miso-pjm.com/markets/jcm-settlement-data.aspx>

Day-Ahead Market Coordination

Description: This item deals with both the near-term, day-to-day coordination between the two RTOs' Day-Ahead Markets as well as the longer term issue of whether and how the Day-Ahead Firm Flow Entitlement (FFE) exchange provisions in the JOA should be updated or redesigned. Day-to-day coordination improvements have been identified by stakeholders as a high priority area for examination, and the RTOs have made significant progress in that area. Analysis has shown that the FFE exchange provisions of the JOA could be potentially redesigned to maximize economic benefits and efficient utilization of transmission facilities on the seam of the two RTOs, and therefore it has been identified as a high priority issue. Addressing this issue will require significant RTO staff and stakeholder analysis and discussion.

Deliverables: JOA and process changes specific to Day-Ahead Market operation

Timeline: Parts of this exchange were implemented, at both RTOs, on January 28, 2016, however further refinement, if agreed to, will need to continue throughout 2016.

Status: Complete with on-going monitoring. Day-to-day coordination improvements have been completed between the two RTO's Day-Ahead Market operations. These coordinated efforts included the identification and communication of flowgates and constraints for any known or expected system conditions relative to the timing of each RTO's Day-Ahead Market.

A joint benefit study in support of potential improvements to day-ahead flowgate utilization on the seam has been completed. Development of detailed procedures and guidelines to facilitate a FFE exchanges in the MISO/PJM Day-Ahead Markets has been completed. Also, the RTOs have identified metrics that will be measured and used to evaluate the effectiveness of the exchanges. PJM and MISO have completed development and testing of exchange and settlement systems and continue routine collaboration sessions aimed at developing and refining methods and approaches to minimize complexity and risk. The implementation of a Day-Ahead Market FFE Exchange between MISO and PJM began January 28, 2016 following FERC approval. Additional metric reporting will be provided periodically at future JCM meetings.

Transmission and Generator Outage Coordination

Description: Both RTOs recognized the opportunity to implement improved outage coordination. Additional coordination of outage schedules may allow the RTOs to reduce resulting congestion and provide additional transparency to market participants through modeling outages in their respective FTR auctions. Staffs are in the process of exchanging data, evaluating and validating potential impacts, and will report these results to stakeholders along with developing additional proposals as warranted for stakeholder consideration.

Deliverable(s): Potential process changes regarding outage information exchange or outage scheduling timelines pending analysis of costs/benefits.

Timeline: The goal is to reach resolution by February 2014, which will facilitate implementation of process changes prior to the PJM and MISO 2014/2015 annual ARR allocations and FTR auctions.

Status: Complete with on-going monitoring. MISO and PJM provided a final update at the January 2014 JCM meeting and agreed that the enhanced coordination between FTR groups will further improve PJM's FTR funding. MISO

Transmission Owners have agreed to submit planned transmission outage requests for critical facilities further in advance that will facilitate increased coordination of outage schedules amongst the RTOs and further improve funding. The RTOs have agreed to continue analysis of reasons for short-term flowgate requests and investigate ways to reduce the volume.

Interchange Scheduling Business Rule Alignment

- Description:** RTO staffs and stakeholders have indicated that market participants would have more flexibility in scheduling interchange between the PJM and MISO markets if the rules for submitting interchange schedules were better aligned. MISO has determined that a reduction of the real-time schedule notification deadline from 30 minutes to 20 minutes can be supported, which will align with PJM's current rule in that aspect. MISO plans to submit a compliance filing to FERC in the Order 764 docket that will clarify and solidify its current scheduling rules. PJM will approach its stakeholders to move to the MISO rules for intra-hour interchange scheduling and remove the 45-minute duration requirement if FERC approves the MISO filing.
- Deliverable(s):** MISO compliance filing in FERC Order 764 Docket; potential MISO and PJM interchange scheduling rule changes for improved alignment.
- Timeline:** MISO has implemented 20 minute notification period as of October 15, 2013. Per FERC's direction under Order 764 proceedings, MISO will allow intra-hour schedule changes along with intra-hour settlement process expected to be implemented in 2015. PJM has completed its compliance filing process with respect to FERC Order 764.
- Status:** Complete. MISO has implemented 20 minute notification period as of October 15, 2013. Per FERC's direction under Order 764 proceedings, MISO allows intra-hour schedule changes along with an intra-hour settlement process that was implemented June 30, 2015. PJM has removed its minimum, 45-minute duration requirement as a result of compliance with FERC's orders in the 764 proceeding. MISO's changes are complete and PJM and MISO scheduling rules are aligned. The software has been tested and was implemented effective June 30, 2015 at which time MISO become aligned with PJM in allowing intra-hour physical schedules. This completes the items identified for scheduling rules changes.

Freeze Date for Firm Flow Entitlement Calculations

- Description:** Certain components of the calculations utilized to determine the Firm Flow Entitlements that are in turn used to, among other things, determine market-to-market settlements rely on the establishment of a historic reference date on which Firm Point-to-Point reservations and Network resources are based. This historic reference date is known as the "freeze date" and is currently

established as April 1, 2004 based on the date that PJM and MISO began market-to-market coordination. The RTOs and their stakeholders have agreed that the concept of using a freeze date, as well as what that specific date should be, should be revisited given that the period since the current freeze date is approaching 10 years. This is a very complex subject, and as such will require in-depth stakeholder education and discussion. Further, the alternatives to the current approach will be equally complex, as will determining the impacts of potentially moving to an alternative approach.

- Deliverables:** Potential JOA and Interregional Coordination Process (ICP) changes regarding the development of historic allocations of transmission capability.
- Timeline:** Given its complexity, the RTOs expect that discussion of this issue will extend through the end of 2017.
- Status:** The RTOs, with inputs from stakeholders, are currently working with the Congestion Management Process Working Group (CMPWG) on Freeze Date Alternatives. The Congestion Management Process Council (CMPC) approved guiding principles for freeze date replacement. In May 2015 MISO and PJM submitted a joint filing to FERC. MISO and PJM staffs provided a status update to FERC Staff on July 21, 2015. The RTOs are evaluating other alternatives and have developed a timeline to work towards a solution by the end of 2017. Status updates on this item will be provided at future JCM meetings.

Interface Pricing

Description: The RTOs and stakeholders have identified opportunities for increasing the effectiveness of the interface prices that are established to price interchange between the RTOs. The RTO staffs have produced analysis of the current interface price performance, and will discuss proposals with stakeholders as to how the interface definitions could be updated to improve the effectiveness of the price signals provided to market participants.

Additionally, the MISO IMM has indicated a concern with respect to the inclusion of external constraint congestion impacts in interface prices. The RTOs agree that the identified issue is a high priority for investigation and if necessary, resolution.

- Deliverable(s):** Potential rule, JOA and/or Tariff changes regarding how interface prices are established and how congestion prices are included in interface price calculations.
- Timeline:** The common interface definition solution was implemented on June 1, 2017. Future analysis, using agreed upon metrics, will be reviewed in 2018.

Status: PJM and MISO implemented the collaborative solution effective on June 1, 2017. This solution includes a common interface definition as well as the ability to modify FTR and DA limits to reflect any transaction's impact. In addition, PJM and MISO have developed metrics to use for post implementation review. No JOA revisions were necessary to implement the common interface definition, while allowing for modification of FTR and DA limits to account for transactions did require revisions that were approved by FERC.

Treatment of Ontario-ITC PARs in the Market-to-Market Process

Description: The Ontario-ITC PARs are currently modeled in the Market Flow and Firm Flow Entitlement calculations as free-flowing ties. Conversely, the PARs are modeled as open circuits in the Interchange Distribution Calculator (the industry tool used to determine transaction curtailments through the NERC TLR process) during times when they are determined to be adequately controlling flows across the interface. The RTOs have committed to work with the other Balancing Authorities around Lake Erie to evaluate the performance of the PARs being able to manage Lake Erie loop flows after one year of operation to determine whether modeling in the Market Flow and Entitlement calculations should be changed to better reflect their actual operation.

Deliverable(s): Analysis of the performance of the PARs through the first year of operation; potential changes to how the PARs are modeled in the Market Flow and FFE calculations.

Timeline: The RTOs completed the analysis at the end of 2013, and are engaged in ongoing stakeholder discussion through the JCM process. Discussions were held and agreement was reached in November 2014. Project scoping and implementation is planned for 2015.

Status: Complete. Incorporation of the Michigan-Ontario PARs into the MISO-PJM market-to-market process was successfully implemented on July 28, 2016.

Use of the Ontario-ITC PARs for Congestion Management

Description: The Ontario-ITC PARs are currently operated in a manner such that actual flows across the Ontario-ITC interface are aligned with the scheduled values to the greatest extent possible. The potential may exist to implement an alternative operating protocol for the Ontario-ITC PARs such that instead of the current operating protocol of the intent to match the flow across the interface to the scheduled amount, they could be operated to minimize congestion on facilities that experience flow impacts around Lake Erie. Analysis will be required to determine the costs and benefits of changing the current complex operating protocol, there are multiple entities around Lake Erie that will need to be involved in the analysis and discussion, and multiple

regulatory authorities will need to approve any change to the operating protocol (FERC as well as the DOE).

Deliverable(s): Cost/benefit analysis of changing the operating protocol for the Ontario-ITC PARs; potential operating protocol changes pending the results of the cost/benefit analysis.

Timeline: TBD.

Status: On-hold. This effort is currently on hold pending resolution of the treatment of the Ontario-ITC PARs in the M2M process.

Coordinated Transaction Scheduling

Description: Both MISO and PJM Independent Market Monitors have stated in their respective State-of-the-Market reports that real time interchange between PJM and MISO could be accomplished more efficiently and the Participants have not been fully effective in arbitraging the price differences in real time. Other analysis suggested that Participant scheduling in reaction to price differential leads to significant volatility of the energy transfers (Net Interchange) across the seam and creates operational challenges and market impacts. In addition, the RTO staffs have been analyzing instances where it appears that interchange between the markets could have been coordinated more efficiently. The results of that analysis, which were concluded in the Fall of 2013, has been utilized to develop recommendations as to how the RTOs could achieve more optimal coordination of interchange in the future. The work currently ongoing between PJM and NYISO with respect to Coordinated Transaction Scheduling will also inform the PJM/MISO JCM process on this issue.

Deliverable(s): Analysis of operating events; potential JOA and/or Tariff rule changes to implement procedures or market rules to better optimize interchange between PJM and MISO.

Timeline: The JCM effort on this issue was concluded in November of 2014, and the individual RTO stakeholder processes were completed in February of 2015. A joint FERC filing will be submitted in the second quarter of 2015.

Status: MISO and PJM staffs have developed a Coordinated Transaction Scheduling (CTS) design to achieve more optimal coordination of interchange in real time across the MISO-PJM interface. Stakeholders from both MISO and PJM have approved the proposal. The RTOs decided to hold the submittal of a coordinated filing to allow for MISO and PJM staffs to meet with FERC staff to discuss interface pricing along with other JCM initiatives. MISO and PJM staffs submitted the coordinated filing on December 15, 2015 with implementation of CTS across the MISO-PJM interface scheduled for October 2017. MISO and

PJM have initiated detailed engine design effort with Alstom including development of MISO's price forecasting capability. FERC accepted the filing on April 18, 2016.

Use of Commercial Flow in M2M Process

Deliverable(s): In the M2M process, Market Flow (MF) is the flow on a specified flowgate as a result of dispatch of generating resources serving market load within a Market-Based Operating Entity's market. The calculation of the Market Flow is important because it determines the flow contribution on each flowgate which ultimately is used for determining the M2M payments associated with under or over usage of the system. The Market Flow calculations specific to the treatment of imports and exports needs to be reexamined in order to ensure consistency with the flow-based pricing systems utilized by the RTOs, Commercial Flow ("CF"). Proper alignment of Commercial Flow with M2M Market Flow ensures that Balancing Congestion and M2M payments can offset each other when each RTO keeps to their entitlement values.

Timeline: TBD.

Status: On-hold. The RTOs decided to exclude commercial market flow in the PJM and MISO interface pricing collaborative approach in an attempt to work towards a near term solution to address interface pricing. Once a near term solution is introduced for interface pricing RTOs will re-evaluate this initiative.

Pseudo-Tie Improvements

Deliverable(s): Pseudo-ties are utilized to incorporate load or generation into the attaining balancing area. MISO and PJM have observed a significant increase in the volume of pseudo-ties. MISO and PJM will collaborate on process improvements to ensure reliable operation of the transmission system with the larger volume of pseudo-ties.

Timeline: The first phase of this effort is focused on short-term deliverables to support efforts needed to facilitate implementation of pseudo-ties by June 1, 2016. The second phase of this effort will focus on criteria and improvements to support pseudo-ties by June 1, 2017.

Status: The first and second phase efforts have been completed. RTOs will continue their efforts to mitigate near term market related challenges, such as overlapping congestion charges. In parallel, the RTOs are discussing long term coordination processes/agreements and efforts are underway to work through these items.

2016 Biennial Review Report

Deliverable(s): Per MISO-PJM JOA article 21, complete the biennial review report for 2014 and 2015 M2M efforts.

Timeline: Complete the 2014 and 2015 report in Q1, 2016.

Status: Complete. PJM and MISO successfully completed their 2nd biennial review update. RTOs made significant progress since 2014 report; out of the 18 initial baseline recommendations 15 are complete and three are ongoing. Eleven Change Management Tickets have been implemented since the 2014 report. The 2016 report is posted for stakeholder review [here](#).

CATEGORY II: RESOURCE ADEQUACY

Capacity Deliverability (i.e. Network Service Coordination)

Description: RTO staffs will initiate the “fact-finding” effort through the JCM stakeholder process as requested by OPSI and OMS. Through the Fact-Finding requested by the states, the JCM process would make tangible progress on this issue and examine what changes would be necessary, and whether such changes would be cost beneficial, to enable units in one region to be deliverable in the adjoining region without the need for multiple transmission service analysis to be performed once the deliverability analysis for a resource is completed. The fact-finding will ensure that issues are appropriately framed and narrowed by a date certain, such that solutions to those issues which are determined to be cost-beneficial to resolve are implemented on a to-be-determined schedule. After completion of the fact finding, the parties can agree whether they wish to undertake further work on this issue or whether either party wishes to present the remaining issues to FERC based on the fact finding record and JCM activities created through this process.

In an effort to address the items that were detailed in the OMS/OPSI filing in FERC docket AD12-16, as well as the OMS/OPSI presentation at the open FERC meeting on June 20, 2013, the fact-finding will begin with technical analysis of how the results of the unit-specific deliverability determination as it is currently conducted by the two RTOs would change if it were executed using an expanded network model that included a more detailed representation of the combined PJM/MISO footprint. This initial analysis will identify whether there are either additional constraints that need to be considered with respect to the deliverability of individual units to each RTO’s load, or whether there is additional generation that could be deliverable to each footprint’s load as a result of using an expanded, more detailed model.

The results of that technical analysis will then be expanded to determine if beneficial differences in results could be achieved by including generators in the other RTO’s area in the studying RTO’s deliverability analysis, in order to simulate enhanced energy market coordination. Groups of generators in the

other RTO would be included in the studying RTO's Generator Deliverability Analysis as if it were generation in the RTO performing the analysis. That is, for these groups of other RTO generators, the RTO would change the static dispatch level currently in the model and instead set their dispatch level in the same manner as the RTO sets the dispatch level of its own modeled generators and will perform a deliverability analysis on these generators as well.

The initial groups selected for this analysis are those in the areas of generators in the other RTOs territory that are already Capacity Resources for the RTO performing the analysis, but that the analysis continue with other groups of generators throughout the other RTOs footprint. This analysis would demonstrate whether additional generators in the other RTO, on a unit-specific basis, would be deliverable to the RTO performing the analysis should they request such qualification. It could also potentially reveal additional transmission constraints that should already be considered in the RTOs' current deliverability analyses. This second analysis would be informative because it would highlight whether updated assumptions in the Planning analysis would reveal areas where additional resources could potentially be certified as deliverable to load across the seam in order to maximize the transmission service that can be made available to facilitate Capacity transfers, should such transmission service be requested.

Third, the RTOs will analyze what it would take (including the costs and benefits of same) to move to a fully networked deliverability analysis to the combined footprint load and will conduct deliverability tests using this combined footprint load to reveal potential deliverability results under this methodology.

The results from these analyses would then be used to inform analysis of the benefits of conducting the generator deliverability tests with a more integrated approach taking into account all other energy and ancillary service market changes that may be required in order to implement such an approach. The output of these incrementally more complex analyses would be synthesized to develop responses to the six (6) critical issues identified in the OMS/OPSI filing, as well as the majority of the steps identified in the OMS/OPSI June 20, 2013 presentation.

The RTOs would also develop methodologies for determining the maximum quantity of Capacity that can reliably be committed from resources external to its footprint, as noted in the OMS/OPSI presentation.

PJM is conducting an analysis of the level of Capacity imports that can be reliably supported by physical transmission system capability in the RPM Capacity auctions. PJM is working with its stakeholders to develop a process

by which to ensure that the quantity of external resources committed through RPM to serve PJM's Capacity requirements can reliably be imported with the planned transmission system. While this effort will proceed independent of the fact-finding process described here, PJM will coordinate with MISO as this methodology is developed, and as MISO develops or refines its own methodology for the same purpose. Together, the three-step analysis described above and the two RTOs' Capacity import analysis will provide the technical analysis necessary to complete the fact-finding envisioned by OPSI/OMS. PJM and MISO will then work to identify the feasibility of changes required to market rules and operating protocols that would be required to implement the changes to the deliverability analysis that the fact-finding determines to be beneficial to pursue. Identification of these required changes will form the basis for the cost/benefit methodology that is the last step in the OMS/OPSI fact-finding process.

In the course of completing the technical analysis described above, PJM and MISO will also investigate and determine potential resolution for the following issues that were identified through the JCM process to date: Dispatch Control Requirements for External Resources, Existing Generation Deliverability Assessment; Transmission Limitations; Day-Ahead Market Coordination, and Assess Physical Transfer Capability of Existing Transmission

Deliverables: Written Report documenting the methodology and results from the deliverability analysis conducted on a detailed model of the combined RTO footprints as described in the three steps above; written answers to the questions and issues listed in the OMS/OPSI fact-finding request including discussion of feasibility of and requirements for changing the processes in either RTO to enable any changes identified in the deliverability analysis ; documentation responsive to the issues (numbers 2, 3, 4, 5, and 6 as indicated on the capacity deliverability work plan) listed above that were identified through the JCM process. Preliminary results and review of progress will be undertaken through the JCM process and related consultation with OPSI and OMS.

Timeline: The fact-finding effort and associated production of deliverables was completed in April, 2014. The RTOs will continue to update stakeholders with progress reports at each JCM meeting, and stakeholders will have the opportunity to provide feedback regarding analysis conducted at the point of each JCM meeting as well as feedback on the cost-benefit analysis and plan to move forward. If the fact-finding effort results in a product that is determined to be cost-beneficial to address, based on the RTO analysis and stakeholder input and feedback, then the RTOs will work with stakeholders to develop proposals to resolve those issues by the Fall of 2014. Any agreed-

upon resolutions will be, to the extent possible, implemented by the RTOs' respective Capacity auctions in the spring 2015.

Status: Complete. The analysis documented in the plan submitted to FERC is completed and a fact-finding report has been finalized. MISO and PJM were able to complete a coordinated study on deliverability despite the different approaches. The study indicates that more than 96% of MISO and PJM units are jointly deliverable to the aggregate MISO and PJM load footprint and the total transmission capability between the two systems is quite significant. After comparing with existing utilization the RTO's found that the transmission capability in the MISO to PJM direction is almost fully subscribed while the transmission capability in the PJM to MISO direction is minimally utilized for capacity. Therefore, there could be some potential benefit in the PJM to MISO direction. MISO staff presented three proposals to address inefficiencies in the transmission capacity utilization in the PJM to MISO direction for stakeholder consideration at the May 27, 2015 JCM meeting and requested feedback from stakeholders. At the August 20, 2015 JCM meeting MISO proposed to move forward with External Network Resource Interconnection Service concept as a solution to address inefficiencies in the transmission capacity utilization in the PJM to MISO direction. MISO staff provided a report on stakeholder feedback received and next steps at the November 18, 2015 JCM. MISO submitted a compliance filing to FERC on May 31, 2016 with revisions to MISO Tariff that addresses external NRIS protocols and FERC accepted the revisions in order issued on January 3, 2017.

CATEGORY III: TRANSMISSION PLANNING

Generation Interconnection and Transmission Service Request Queue Coordination

Description: The RTOs addressed improved coordination of these queue processes in 2012, and implemented changes to their respective business process manuals. The RTOs further agreed to revisit these processes after gaining experience with the improvements and recommend to the stakeholders whether further enhancements would be beneficial.

Deliverable(s): Potential additional changes to the RTOs' generation interconnection and transmission service request queue processes.

Timeline: Stakeholder review of the current processes was initiated in the Spring of 2014 and is scheduled to conclude in the Fall of 2014.

Status: Complete. MISO and PJM staff will continue to monitor the existing coordination and propose future enhancements, as necessary, at future JCM meetings.

Order 1000 Interregional Compliance and Regional Planning Coordination

Description: Both RTOs submitted their Order 1000 interregional compliance filings on July 10, 2013. In particular, the RTOs noted that disagreement existed with respect to interregional cost allocation for cross-border reliability projects, and therefore it is was likely that further filings would be required of one or both RTOs. As expected, on December 18, 2014 FERC issued an order requiring further compliance primarily focused on interregional cost allocation regarding cross-border reliability projects and public policy projects.

Deliverable(s): Stakeholder updates on Order 1000 compliance filings.

Timeline: The compliance filing was filed on July 31, 2015 (FERC Docket EL13-88).

Status: Complete. MISO and PJM worked through their regional committees and the Interregional Planning Stakeholder Advisory Committee to develop a proposal that meets Order 1000 compliance directives. FERC issued an order April 5, 2016 conditionally accepting the second round Order 1000 interregional compliance filing with an additional compliance filing due on or before June 20, 2016. MISO and PJM submitted their compliance filing on June 20, 2016, and FERC issued a ruling on October 28, 2016 denying the rehearing requests and conditionally accepted the compliance filing subject to additional compliance directives due within 30 days of the ruling. PJM, MISO and TOs submitted their third compliance filing in November with an update in December. The FERC issued its 4th Order on January 9, 2017 accepting the filing. This constitutes final Agency action in this matter.

Market Participant Funded Upgrades and ARR Requests

Description: The JCM effort on this issue has begun. The RTOs have previously addressed increased coordination in this area in 2012 and 2013 and filed resulting JOA changes in December of 2013.

Deliverable(s): Potential additional JOA and/or Tariff rule changes pending stakeholder review of the current processes.

Timeline: The RTOs initiated stakeholder education on this issue in January of 2014. Given the level of coordination that has already occurred in this area, the RTOs expect that the JCM stakeholder discussion can conclude in March of 2014. The Work Plan included individual RTO stakeholder discussion through the summer 2014, in recognition that further coordination steps may have

been identified through the JCM discussions that would have required consideration by the individual stakeholder processes.

Status: Complete. Depending on discussions at the future JCM meetings, RTOs can recommence this issue to further enhance the coordination steps.

Interregional Planning Stakeholder Advisory Committee (IPSAC)

Description: The Interregional Planning Stakeholder Advisory Committee (IPSAC) handles cross-border planning topics between MISO and PJM. The current tasks include administration of JOA and Order 1000 planning-type processes, the 'Quick Hits' study, targeted planning studies near the seam, and a joint study process and metric review. The RTOs' current cross-border planning process has not yet resulted in any projects. A review of the similarities and differences of the RTOs' regional and joint study processes will determine areas where more alignment would be beneficial. This review may encompass interconnections, retirements, models, coordination, metrics and assumptions. Additionally, targeted studies may be performed to address planning issues along the seam.

Deliverable(s): An Order 1000-compliant process, recommended projects that address issues along the seam, potential changes to the RTOs' planning practices and coordination, and stakeholder updates on on-going planning coordination activities.

Timeline: On-going.

Status: JOA changes to implement the Targeted Market Efficiency Project (TMEP) new project type were filed with the Commission on December 30, 2016. Regional Cost allocation provisions are targeted for filing by the end of May with an anticipated June effective date for the TMEP process. PJM and MISO are targeting December 2017 for TMEP recommendations to the respective Boards.

FERC issued Orders on Docket EL13-88 ("NIPSCO Order") accepting JOA and Tariff changes filed by MISO and PJM on June 20, 2016 and December 15, 2016 (subject to further compliance) and ruling on open rehearing and clarification requests. MISO and PJM were given an additional seven compliance directives which, after a granted extension request, were due April 24, 2017. On April 24, 2017 MISO did request additional time to address one directive related to MISO's regional cost allocation methodology for interregional market efficiency projects.

MISO and PJM are in the second year of their two-year Interregional Market Efficiency Project study. MISO published regional issues, for interregional project consideration and solicited interregional projects from stakeholders,

concurrent with PJM's regional project solicitation window. MISO and PJM will evaluate interregional project proposals submitted to both regional processes. Analysis is expected to begin in April and May, with any potential Interregional Market Efficiency Projects recommended for MTEP17 and RTEP17 inclusion.